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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,753	12/20/2000	Hee Bok Kang	HME/K-10Q	4978

7590 11/14/2002
FLESHNER & KIM, LLP
P.O. Box 221200
Chantilly, VA 20153-1200

EXAMINER

LUHRS, MICHAEL K

ART UNIT PAPER NUMBER

2824

DATE MAILED: 11/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/739,753

Applicant(s)

KANG ET AL.

Examiner

Michael K. Luhrs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 15-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: search history

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of the election/restriction requirement in Paper No. 5 is acknowledged. The traversal is on the ground(s) of MPEP§ 803 to search burden. This is not found persuasive because the device and method are different inventions.
2. The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

3. Claim 15 is objected to because of the following informalities: spelling error, line 12, p. 41, change "contract" to --contact--. Appropriate correction is required.
4. Claim 15 improvement to the preamble wording is requested as follows: change line 1, of claim 15, to read, --A method for manufacturing a nonvolatile ferroelectric memory device comprising the steps of:--.

Allowable Subject Matter

5. Claims 15-24 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter:
The prior art, (notably, is also by the present applicants), Kang et. al. (USPN 6,319,731 B1) shows the ferroelectric capacitor connection, (layer 105, Fig. 12i), made below the first electrode of the capacitor. This is also consistent with other prior art, e.g. Chen et. al. (USPN 6,238,963 B1). In contrast, claim 15 of the present invention, namely, the limitation of "respectively forming first and second conductive layers that couple the second plugs with the second electrodes of the first and second ferroelectric capacitors;", identifies the conductive layer that forms the connection from the plug to the second electrode of the capacitor-- the second electrode of the capacitor being that it is formed after the first electrode makes the second electrode above the first electrode, i.e. on top, and thus requires the conductive layer making the coupling connection to be situated from the plug, up, and over, the second electrode of the capacitor. This

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connection formation method was found in Brassington et. al. (USPN 5,350,705), yet Brassington et. al. lack the method that depicts the capacitor(s) directly above the gate(s) which is provided by the applicants to complete the method that reduces the overall sizing, i.e. the applicant is claiming to first, and second, capacitors over the first and second split wordlines, would not have been obvious. The examiner also notes, that such overlap connections are found in other areas of devices, e.g. over pixel electrode, and reference to Lee, USPN 6,335,211, Fig. 2 is provided in that regard.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael K. Luhrs whose telephone number is 703-305-2864. The examiner can normally be reached on M-F; 8:00 a.m. - 5:00 p.m..
8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard T. Elms can be reached on 703-308-2816.
9. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.
10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

MKL

Michael K. Luhrs
November 12, 2002


MICHAEL S. LEBENTRITT
PRIMARY EXAMINER